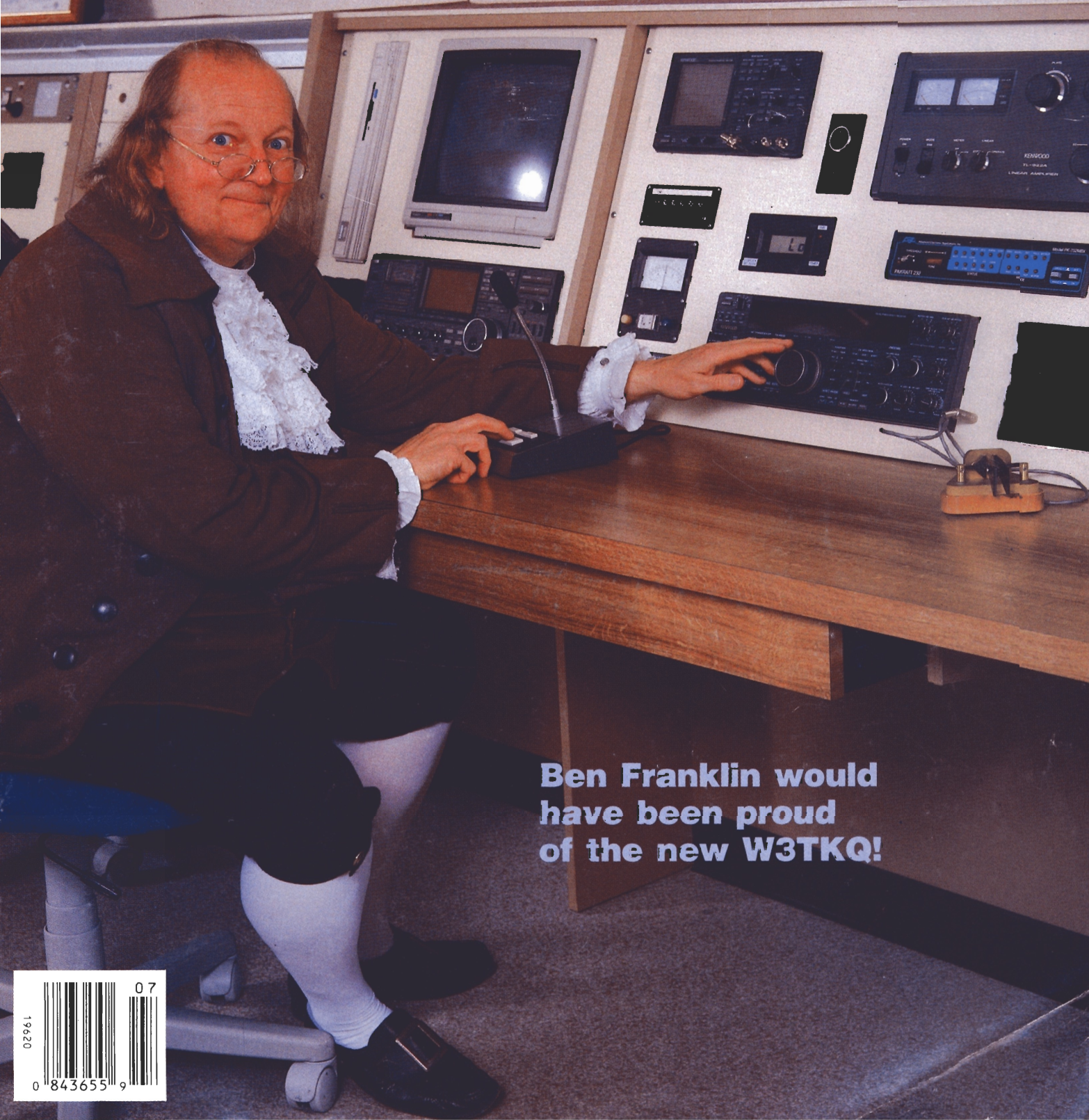


QST

devoted entirely to Amateur Radio

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**Ben Franklin would
have been proud
of the new W3TKQ!**

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The Rebirth of W3TKQ

When the club station at the Franklin Science Museum was threatened with extinction, members of the Phil-Mont Mobile Radio Club turned it into something special. Now it's an Amateur Radio showcase for thousands of visitors.

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The new W3TKQ, the club station of the Phil-Mont Mobile Radio Club at Philadelphia's Franklin Institute Science Museum, didn't always look as nice as it does on the cover of this month's magazine. The renovation required hundreds of hours of work and dedication to a cause. Ben Franklin, portrayed by actor Ralph Archbold of Philadelphia, was proud to take part in dedicating the station to the Phil-Mont Mobile Radio Club (whose members worked unceasingly on the project), the Franklin Institute Science Museum and to the thousands of visitors each year who are exposed to Amateur Radio as they tour the facilities.

This article is presented as an example of what can be done by a motivated group of service-minded hams. We hope it encourages your club to get involved in a similar worthy project. The results are well worth the effort!

The Beginning

One look at the station in its rundown condition (about a year and a half ago) made me angry—at myself for allowing such a prestigious station to decay as it had. Many station changes had been made by the Franklin Institute, and not one was complimentary to Amateur Radio because the changes had been initiated by people who had other interests.

What was once a proud station boasting all new Collins equipment was now relegated to a corner of the Institute that saw few visitors. What really set things in motion for us, however, was when the museum moved to terminate the ham radio exhibit. A museum official thought the station no longer served the Institute or the community (and in the station's former condition, the official was probably right).

We received the word of the station's potential demise from a friend at the Institute who felt that the Amateur Radio exhibit was too valuable to close. Besides,

New Gear

From the ashes of the original station, dedicated in 1962 by Dr Wynn Lawrence LePage, then Director of the Institute, grew the new W3TKQ. The station now has a new 27-foot-long console with seven operating positions, each dedicated to specific frequencies and modes.

Included at several positions are computers for packet radio and satellite tracking (for the new IC-970 multimode VHF/UHF transceiver). Another computer, donated by Tandy Corporation, operates the TNC with a new TS-950S and an AEA PK-232 RTTY/AMTOR controller—donations from the Kenwood Corporation and Advanced Electronic Applications.

Since the dedication ceremony by Mrs Gioia Marconi Braga (the inventor's daughter) on October 23, 1991, the station has operated with volunteer operators. Their activities have produced more than 500 hours of operation each month with resounding results.

The exposure that the new station has had in the Institute itself resulted in new Adult Education classes being offered by the Institute, taught by staffers supplied by the Phil-Mont club. The first such session was on Sunday, February 2, with eleven students ranging in age from 10 to 60 years.

Training and testing new hams is nothing new for the Phil-Mont club, however. In the past three years, Phil-Mont has administered 811 exam elements to 518 examinees. The new W3TKQ will only add to the long list of new hams.

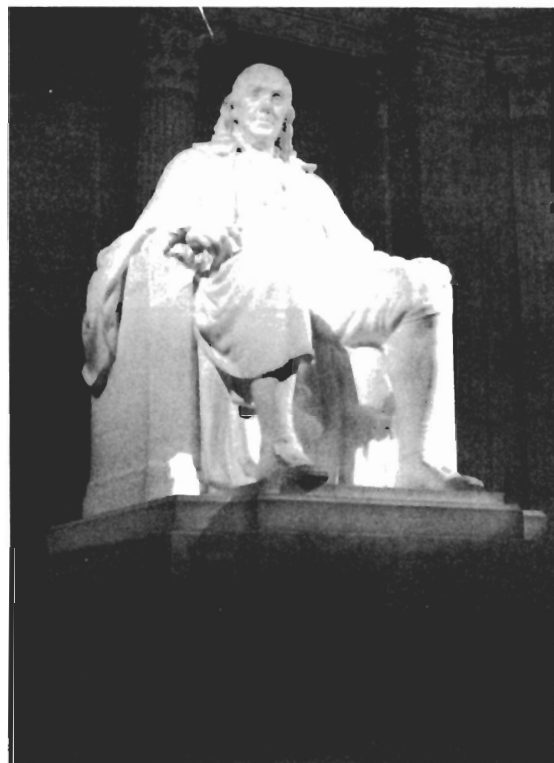


Each of the seven new operating positions at W3TKQ is equipped with state-of-the-art Amateur Radio gear—a far cry from the pre-renovation days!

A Brief History of the Franklin Institute

The Franklin Institute dates to its inception in 1924, when Samuel Vaughan Merrick and William H. Keating founded The "Franklin Institute of the State of Pennsylvania for the Promotion of the Mechanic Arts," which was dedicated to Ben Franklin in honor of his many useful inventions and was located in the County Court House in Philadelphia, a building now known as the Independence Hall Building.

From 1825 to 1934, the Franklin Institute was located on the east side of Seventh Street, now home of the Atwater Kent Museum. In 1930, the Poor



This 30-ton marble statue of Ben Franklin, sculpted by James Earle Frazer in 1938, can be seen at the Franklin Institute Science Museum—a premiere Philadelphia attraction that serves nearly a million visitors a year.

Richard's Club and the Franklin Institute conducted a public subscription for funds to build a science museum and memorial to Benjamin Franklin. In 1932, the cornerstone of the new Franklin Institute was laid at 20th Street and the Benjamin Franklin Parkway.

Samuel S. Fels gave the Franklin Institute its Planetarium in 1933, making it the second oldest planetarium in the country. On January 1, 1934, the Science Museum of the Franklin Institute opened to the public.

In 1988, construction of the Futures Center, Omniverse Theater, Choices Forum and eight new exhibits began. The Futures Center opened in May of 1990, dramatically increasing the size of the complex and providing new and exciting ways to learn about science and technology.

Our first step was to develop a plan of attack. What should the station look like? What should be its mission statement? We decided that W3TKQ had to represent the future of Amateur Radio. It had to be extremely modern in design, and functional for up to seven operators.

After illustrating the station's future look, the next step was to seek donations from hams and manufacturers. The public library and the *Standard and Poor's Directory* provided the names of CEOs and company presidents. I thought that if they read the real story of what we were trying to accomplish they could not refuse. Well, I was wrong. The overall response was gratifying, but several of the manufacturers were less than willing to cooperate.

One of our best windfalls came from the Institute itself. Originally, the radio room, which had been located in Electric Hall, had been moved to the end of a hallway on the fourth floor—with only a three-foot-wide door telling the story of Amateur Radio. After seeing the completed station and its beautiful, functional console, the Director of Exhibits, Bill Booth, decided that a "glass wall" in place of the real wall at the station would be ideal.

We had been hoping for additional exposure, and the station had done it for us. Mr Booth's reaction was just what we needed. "After all," he indicated, "if we're going to give you the kind of exposure this beautiful station deserves—and considering the amount of effort you folks put into it—this is the least we can do."

Because the Institute wasn't going to have time to install the glass wall before the dedication ceremony, we decided to paint a picture of the station on the outside wall. As this goes to press, the new glass wall is in place and visitors can clearly see the station in its entirety.

Money Matters

Members of the Phil-Mont Mobile Radio Club were polled and asked to donate at least \$15 each. Each console was marked for dedication by any person or couple who would donate \$500 for that particular station. In less than a month, all seven consoles had been "sold," and the donations amounted to \$3500.

(One of the Institute's Assistant Directors was so taken by the work that was developing that he donated \$500 of his own funds toward the station... and he's not even a ham!)

Enough money was raised to start construction of the console at the millwright. Our local *Blurb*, the club's official newsletter, was filled with articles and an artist's conception of what the station would look like when completed. At press time, the money raised, including labor and equipment donations, has exceeded \$50,000.

Looking Back—and Ahead

We could only dream of bigger and

the ham radio display had been there since 1952 and was now in its 39th year of operation. Our friend thought that any potential cost savings for the Institute would be minimal.

Coincidentally, the Phil-Mont Mobile Radio Club had just appointed a liaison to the Franklin Institute to provide better communications between the two organizations. This proved to be an important step, and one that is recommended for all associations that administer Amateur Radio projects in outside facilities.

The club sprang into action as soon as word of the potential closing spread. An emergency meeting of the Board of Directors was called to order, and out of that meeting came a sense of direction that would herald a new and exciting W3TKQ.

The Renovation Takes Shape

A meeting with the museum's Director of Services was polite and well received, for

after the discussion, it was decided to not only allow the Amateur Radio exhibit to remain intact, but to develop it further with an all-volunteer organization. We would develop ongoing programs for public education classes and seminars that would generate interest in the visiting public.

The meeting was attended by ARRL Atlantic Division Vice Director Kay Craigie, WT3P, and me, and it appears that with all the information that was developed for the presentation, we were pretty convincing.

Now came the hard part. The station was in no shape to receive visitors and showcase the fun of ham radio! The station had deteriorated to a few pieces of equipment, and the only remnant of what used to be an impressive display was a large circular map of the world. Not very impressive! The station needed a new purpose and a new meaning. And it needed a new look and new equipment.

It's a Radio Museum, too

In the mission statement of the Franklin Institute there is a passage that states "...to preserve the rich history and tradition of the science and technology and the Institute's historic role by maintaining historic collections and presenting them to the public..."

In this vein, the new station dedicates an entire side wall to displaying radio equipment from as early as 1918. The early commercial and amateur gear form a comprehensive collection and are a real treat for those visiting the station.

One of the more intriguing steps taken to generate interest in the exhibit was to draft a note to the Marconi House in Chelmsford, England. After learning the curator's name from Mrs Gioia Marconi Braga, we obtained a set of pictures that describe Marconi and his achievements in a story fashion. We now boast a collection of 42 photographs that clearly show the development of Marconi's inventions, from early childhood to his experiments aboard the ship *Eletra*. On board, Marconi developed shortwave directional transmissions, which he considered potentially far superior to the high-powered longwave systems of the day.

This is just one of two Marconi exhibits we developed with the help of Mrs Gioia Marconi Braga, the Canadian Broadcasting Company and RAI, the Italian radio and TV system. Thanks to RAI, we have exclusive rights to show a video feature of Marconi that was produced in 1982 called *The Spark that Shook the World*.



A wall full of antique radios and hardware rounds out the Marconi exhibit, which traces the development of radio from its earliest days.

better things back when the station was too small to exhibit anything other than one or two operators. With the new W3TKQ, however, those dreams have come true.

Now, members of our adult and children's workshops can sit in the station and observe a full measure of Amateur Radio in action. The excitement and nervousness of the students is obvious, but their anticipation and eagerness is clear to all.

Recently, we asked for additional volunteer operators to man the station. The response from the community was excellent. Still, the need for at least another 20 volunteer operators to properly exhibit the station during the Institute's operating hours was apparent. We have found that while merely opening the exhibit itself

generates interest, we can't do it justice if we have only one person on duty. We need at least two operators, and at times, four operators on board.

One operator interacts with the visitors while the others demonstrate the equipment and the vast array of modes available. For some audiences, time is short, and if our story of Amateur Radio isn't immediately interesting, they'll move on (this is especially true of youngsters).

It pays us to have our story down pat and to be able to develop our presentations for specific groups. Obviously, no two groups are the same, and we soon learned what was necessary to hold their attention.

The ATV setup is particularly popular with the youngsters. When they watch

themselves on the monitor and are able to hear both sides of the conversation, they are thrilled beyond description.

We encourage other clubs that do not share their experiences with the public or other hams outside their immediate membership list to reconsider their missions. Sharing our activities is extremely rewarding. Setting up a high-visibility ham station is the best public relations and organizational tool around.

As many Institute Directors have said in the past, we, as teachers, have a responsibility to remember the past, but an even greater responsibility to help develop our scientists of the future. What better way to do this than through the "New" W3TKQ and the facilities of the Franklin Institute Science Museum? Your city's museum, perhaps?

QST

New Products

CALL SIGN DATA BASE

☐ *HamBase 2.00* for 1992 is a full-featured call sign data base package that offers users the opportunity to retrieve information on any currently licensed US or Canadian amateur by entering a call sign. The program, which runs on IBM-compatible MS-DOS computers with floppy diskettes or 20-30 megabytes of hard drive storage space, reports the licensee's name, address, age, license class and expiration date. The software can be run as a stand-alone program, from a "pop-up" window, from the DOS command line, or as an integrated part of an external program (the C source code and application notes are included). *HamBase 2.00* features a customizable QSL printing utility and user-updatable data files (and handy for when someone you know gets licensed or changes call signs). The pop-up version allows you to place information into your keyboard buffer to be "pasted" into other programs. You can also "unpack" the data files into comma-delimited ASCII text files for use with your own data base management software. For MS-DOS computers, Macintoshes, and there's also a version that runs on IBM-compatibles under Microsoft Windows 3.0. Contact Susan Tracy, WA6OCV, at j-Com, Box 194, Ben Lomond, CA 95005, tel 408-335-9120, fax 408-335-9121.